

### REMARKS

Claims 1-3 are pending in the application. In the Office Action of May 28, 2003, the Examiner made the following disposition:

- A.) Rejected claims 1 and 2 under 35 U.S.C. §103(a) as being unpatentable over *Applicant's Figure 4* in view of *Yamashita et al.*
- B.) Rejected claim 3 under 35 U.S.C. §103(a) as being unpatentable over *Applicant's Figure 4* in view of *Yamashita et al.*, and further in view of *Haga et al.*

Applicant respectfully traverses the rejections and addresses the Examiner's disposition as follows:

- A.) Rejected claims 1 and 2 under 35 U.S.C. §103(a) as being unpatentable over *Applicant's Figure 4* in view of *Yamashita et al.*

Applicant respectfully disagrees with the rejection.

Applicant's independent claim 1 claims a solid-state imaging device having an output portion connected to an output end of a horizontal transfer register. The output portion has a gate structure including an oxide film and a nitride film. The solid-state imaging device comprises a first metal made shield film formed in such a manner as to cover a region of the gate structure including the oxide film and the nitride film, being disposed above a light receiving portion and a transfer portion, of the solid-state imaging device. A second metal made shield film is formed in such a manner as to cover a region of the gate structure including the oxide film and the nitride film, entirely shielding at least an output gate or a reset gate of an output portion, of the solid-state imaging device.

This is clearly unlike *Applicant's Figure 4* in view of *Yamashita*. As acknowledged by the Examiner, *Applicant's Figure 4* fails to teach a second metal made shield film. Applicant respectfully submits that *Yamashita* still fails to disclose or suggest Applicant's claimed second metal made shield film.

Referring to *Yamashita* Figures 21 and 22, *Yamashita* discloses an imaging area having photodiodes 256. Vertical transfer regions are located between the photodiodes 256. A second light-shielding film 272 is located between the photodiodes 256 in the vertical transfer region. Thus, unlike Applicant's claim 1 that claims a second metal made shield film formed to cover elements in an output portion, *Yamashita's* second light-shielding film 272 is not formed in an output portion. Instead, *Yamashita's* second light-shielding film 272 is merely formed in an imaging portion. Nowhere does *Yamashita* disclose or even suggest that its second light-

shielding film 272 is formed in an output portion.

Further, unlike Applicant's claim 1, *Yamashita's* second light-shielding film 272 fails to cover a gate structure including an oxide film and a nitride film. Instead, *Yamashita's* second light-shielding film 272 merely covers a single-layer dielectric layer 268.

Therefore, for at least these reasons, *Applicant's Figure 4* in view of *Yamashita* fails to disclose or suggest Applicant's claim 1.

Also, since *Yamashita* fails to even relate to a light-shielding film located in an output portion or a light-shielding film that covers a gate structure including a nitride layer, one having skill in the art would not have been motivated by the teachings of *Applicant's Figure 4* or *Yamashita*, taken singly or in combination, to combine those reference to arrive at Applicant's claim 1.

Claim 2 depends directly from claim 1 and is therefore allowable for at least the same reasons that claim 1 is allowable.

Applicant respectfully submits the rejection has been overcome and requests that it be withdrawn.

B.) Rejected claim 3 under 35 U.S.C. §103(a) as being unpatentable over *Applicant's Figure 4* in view of *Yamashita et al.*, and further in view of *Haga et al.*

Applicant respectfully disagrees with the rejection.

Applicant's claim 3 claims a solid-state imaging device having an output portion connected to an output end of a horizontal transfer register. The output portion has a gate structure including an oxide film and a nitride film. The solid-state imaging device comprises an organic film capable of absorbing ultraviolet rays. The organic film is formed in such a manner as to cover a region of the gate structure including the oxide film and the nitride film, entirely shielding at least an output gate or a reset gate of an output portion, of the solid-state imaging device.

This is clearly unlike *Applicant's Figure 4* in view of *Yamashita*, and further in view of *Haga*. As discussed above with respect to Applicant's claim 1, *Applicant's Figure 4* in view of *Yamashita* fails to disclose or suggest a shield formed in an output portion that covers a gate structure including an oxide film and a nitride film. As stated above, *Applicant's Figure 4* fails to disclose a shield in an output portion, and *Yamashita* merely discloses a shield in an imaging portion but not an output portion.

*Haga* still fails to disclose or suggest a shield formed in an output portion that covers a gate structure including an oxide film and a nitride film. Therefore, *Applicant's Figure 4* in view of *Yamashita*, and further in view of *Haga*, fails to disclose or suggest Applicant's claim 3.

Applicant respectfully submits the rejection has been overcome and requests that it be withdrawn.

CONCLUSION

In view of the foregoing, it is submitted that claims 1-3 are patentable. It is therefore submitted that the application is in condition for allowance. Notice to that effect is respectfully requested.

Respectfully submitted,

*Christopher P. Rauch* (Reg. No. 45,034)  
Christopher P. Rauch  
SONNENSCHNEIN, NATH & ROSENTHAL  
P.O. Box #061080  
Wacker Drive Station - Sears Tower  
Chicago, IL 60606-1080  
Telephone 312/876-2606  
Customer #26263  
Attorneys for Applicant(s)